

Title (en)  
SEAT RECLINING DEVICE

Title (de)  
SITZNEIGUNGSVORRICHTUNG

Title (fr)  
DISPOSITIF INCLINEUR DE SIÈGE

Publication  
**EP 2301388 A4 20110629 (EN)**

Application  
**EP 09797822 A 20090702**

Priority  
• JP 2009062092 W 20090702  
• JP 2008183606 A 20080715

Abstract (en)  
[origin: US2011001346A1] In a seat reclining device, a spiral spring includes an inner end portion engaged with the cam, an outer end portion engaged with the lower arm, and a wound portion formed by winding and provided between the inner end portion and the outer end portion. The outer end portion of the spiral spring includes a straight line portion extending consecutively from the wound portion and an accommodating portion includes a guide recessed portion accommodating the straight line portion therein and being in contact with the inner peripheral side surface of the straight line portion and being in contact with the outer peripheral side surface of the straight line portion at a further outer end than the contact point with the inner peripheral side surface.

IPC 8 full level  
**A47C 1/025** (2006.01); **B60N 2/22** (2006.01)

CPC (source: EP US)  
**B60N 2/236** (2015.04 - EP US)

Citation (search report)  
• [AD] JP 2000342368 A 20001212 - AISIN SEIKI  
• See references of WO 2010007895A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)  
**US 2011001346 A1 20110106; US 7988233 B2 20110802**; CN 101969813 A 20110209; CN 101969813 B 20121107; EP 2301388 A1 20110330; EP 2301388 A4 20110629; EP 2301388 B1 20120829; JP 2010022400 A 20100204; JP 5098867 B2 20121212; WO 2010007895 A1 20100121

DOCDB simple family (application)  
**US 92281609 A 20090702**; CN 200980109046 A 20090702; EP 09797822 A 20090702; JP 2008183606 A 20080715; JP 2009062092 W 20090702